



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

Library
of the
University of Wisconsin



HOW TO MIX PAINTS

**A Simple Treatise Prepared for the Wants of
the Practical Painter**

BY

C. GODFREY

CHICAGO, U.S.A.

**PRESS OF THE WESTERN PAINTER,
1905.**

Copyright secured 1904 by
Charles G. Feker.

93498
FEB 23 1906

6164436

SJD
.G54

PREFACE.

ALTHOUGH house painting is a distinct and well-defined trade in itself, yet it merges into many other trades. For example, the carpenter, the builder, the carriage builder and many others are called upon from time to time to do more or less painting. The great difficulty with those who have not had the benefit of a long training and experience is in the mixing of colors. They may be able to produce a good paint by taking so much white lead, linseed oil and turpentine; but when it comes to matching a given color they are usually at a loss. This little book is produced for the aid of such men. It does not pretend to be an exhaustive treatise, but as far as it goes it will be found to be accurate.

Some of the principal colors in ordinary use have been selected and instructions are given as to how they may be produced. The reader may ask whether it would not be better to give the exact proportions of the different colors necessary

PREFACE.

to produce a given tint or hue. This plan is quite impracticable for the simple reason that the colors on the market vary so greatly in strength. If so many parts of different colors were mentioned, the painter who used first-class materials would get a totally different result from one who was in the habit of using an inferior grade of goods. The author therefore decided that the most useful plan to follow is to give the method of producing a good color, and has taken materials of ordinary quality as a basis.

The writer trusts that this small work will be of considerable use to his readers.

In conclusion I would state that this little book was written in conjunction and by arrangement with Mr. Arthur S. Jennings, of London, author of a larger work entitled "Paint and Color Mixing."

THE AUTHOR.

New York, August 31st, 1904.

CONTENTS.

	<i>Page.</i>
CHAPTER I.	
Mixing Paints, Straining Paints, Brushes, Tints and Shades - - - - -	7
CHAPTER II.	
Reds - - - - -	22
CHAPTER III.	
Blues - - - - -	26
CHAPTER IV.	
Yellows - - - - -	31
CHAPTER V.	
Browns - - - - -	37
CHAPTER VI.	
Greens - - - - -	41
CHAPTER VII.	
Greys - - - - -	45
CHAPTER VIII.	
Colors Made from Black Japan -	48
CHAPTER IX.	
Displaying Colors - - - - -	50
CHAPTER X.	
Color Harmony - - - - -	52

Principles of Color Mixing.

Primary Colors.

RED

BLUE

YELLOW

Secondary Colors.

GREEN

ORANGE

PURPLE

⎵
BLUE
AND
YELLOW

⎵
YELLOW
AND
RED

⎵
RED
AND
BLUE

Tertiary Colors.

RUSSET

OLIVE

CITRENE

⎵
ORANGE
AND
PURPLE

⎵
ORANGE
AND
GREEN

⎵
GREEN
AND
PURPLE

Tints.

White added to any color gives a tint of that color.

Shades.

Black added to any color gives a shade of that color.

HOW TO MIX PAINTS.

CHAPTER I.

Mixing Paints.

BEFORE proceeding to describe the method of mixing various colors of paint it would be well to explain briefly what paint is and of what it is composed. The most familiar example of paint is the well-known white lead which, when applied to any material, covers and hides it and has the effect of preserving it from decay. If color be added to the white lead as a base, any tint may be obtained. The white lead is, when made, ready for use in the form of a dry powder ; but before it goes into the hands of the painter it is several times ground in linseed oil, and is then supplied to him in a thick, heavy paste, very similar in appearance to putty, excepting that it is whiter.

In order to bring this heavy mass of white lead into a condition suitable for its being applied to

a wall, door or other surface by means of a brush, three materials are added : First, an oil, which is almost always linseed oil; second, turpentine, and third, driers. The object of the oil is to bind the particles of the white lead together. Turpentine is added to thin down the mass so that it may be sufficiently liquid to apply easily. Driers are employed to assist the paint to dry. Some paints need more driers than others, therefore the reader must be warned here against the danger of using driers too freely. An excess of driers will actually retard the drying instead of assisting it.

Zinc white is an excellent pigment which exceeds white lead in value, according to the opinion of many, it being much whiter and finer.

We may assume, then, that white lead or some other suitable pigment is the base of paint or color, and the object of this little book is to instruct the reader how to obtain any one of the ordinary colors.

In some cases lead may be absent. For instance, ochre can be used by itself, as can also metallic oxides.

In most cases it is advisable when mixing a

batch of paint to first mix the white lead and to add the color afterward. We will suppose that an ordinary batch of paint is to be mixed for use on the outside of a frame house. We should take a painter's can or pot and pour a little oil into it, taking care to "swill" it around, so that it touches every part of the inside of the can. The object of doing this is to prevent the lead sticking to the can, which it otherwise would do. We then take a knife or "paddle" (which is easily formed out of a piece of wood in the shape of Fig. 1) and remove a lump of lead from the



Fig. 1.

keg and place it in the can and add a little oil. We then stir the paddle around in order to break up the lumps, adding oil and turpentine until the mixture is almost like cream. We have now, of course, a white paint ready for use, excepting straining, but we wish to make it of some particular color, which we mix separately and add to the white in small quantities.

The simplest way of mixing colors is to use a slab of glass or marble and to employ a spatula or a flexible knife. Place the color or colors on the slab, add a little oil and thoroughly mix them by means of the knife, adding more of any particular color until the required shade is obtained. Add more oil and turpentine in order to secure the proper consistency. The color is now ready to be added to the white.

It will clearly be seen that it will require a good deal of judgment to decide how much color to add to the white, so that it is well to experiment on a small scale before mixing a whole pot full, so that one may fairly well know the amount of color required for the pot of paint. It should be remembered that it is very easy to add more color to a pot of paint but impossible to take any from it. Therefore the color is best made by adding very small quantities at a time. Under no circumstances must dry color be added to a can of paint, as the results are quite sure to be unsatisfactory. In fact, it is wholly impossible for even an expert painter to produce a proper paint unless he mixes his colors separately. If one is so unfortunate as to add too much color,

the only thing to be done is to add enough of the white paint to produce the desired tint.

It will be seen from the foregoing that mixing paints is a somewhat complicated process, requiring practice and experience; and it is probably for this reason that ready mixed paints are so largely used throughout the United States. In England, Germany and France and many other places this class of paint is almost unknown. The objection to ready mixed paints is that they must be made of materials which will not deteriorate or spoil when kept for some time. Of course ready mixed paint may be on the shelf of the painter's store for a year before it is used, and unless something was put in its composition to "disturb" it, it would become almost useless. To one very well known brand, sold throughout America, water is added in order to keep the paint from going "fatty."

Having mixed first our batch of white paint and then added the color separately, we stir the whole up thoroughly with the paddle, try a little of the paint, and keep trying until at last we have the color required.

But before the paint is ready to be applied,

there is a very important thing to do, viz., to strain the paint.

Straining Paints.

If one compares an ordinary job of painting done by a first-class painter with that executed by an amateur or less experienced hand, he will find in, perhaps, ninety-nine cases out of a hun-



A—Body of Strainer.
B—Clips to hold **C** and **D** in place.
C—Compression Band.
D—Wire Gauze.

Fig. 2.

dred, that the latter shows on its surface a number of specks or little bits, while the former is beautifully smooth. The reason for this is that the painter knows enough to thoroughly strain every ounce of paint before he uses it. However fresh the materials may be that are employed there will still remain particles that have not

been reduced to the same consistency as the rest, and no job of painting can be successfully carried out unless all these little particles are removed.

Paint strainers can be obtained cheaply enough. Those are best which have adjustable bottoms which can be removed. Some with wire gauze are good (see Fig. 2), but unless care is taken



Fig. 3.

this gauze gets filled in with the paint and choked up in time. The kind which the writer likes best is intended to be used with a bit of muslin or coarse cloth. The usual form is shown in Fig. 3, excepting that it has a bottom having large holes in it. This is hinged on and the piece of muslin placed inside. The rim at the bottom holds the muslin in place, while the bottom supports it,

and the holes let the paint drop through after it has found its way through the muslin. When this is used it is easy to work the paint around in the strainer with a brush or piece of stick so as to "persuade" as much of it as possible to pass through. Many painters strain all their paint at least twice, and some go as far as doing so three times. Personally, the writer believes that paint should be strained twice for good inside work; but a coarse piece of muslin may be used the first time so that the actual process of straining be not too long delayed. The paint having been thus strained is quite ready for use. The reader may think, having read the foregoing, that the operation would take too much time, and no doubt for a totally inexperienced hand a considerable amount of time would be expended in obtaining the desired color. On the other hand, it is well worth learning to strain well; and if once a man becomes an expert he can match a batch of color almost in a few minutes; the rest of the operation is quite simple. There is also this advantage, that one knows what he is using. For cheap work cheap materials may be used.

A word may be said here as to the employment of machinery for mixing paints. No doubt large

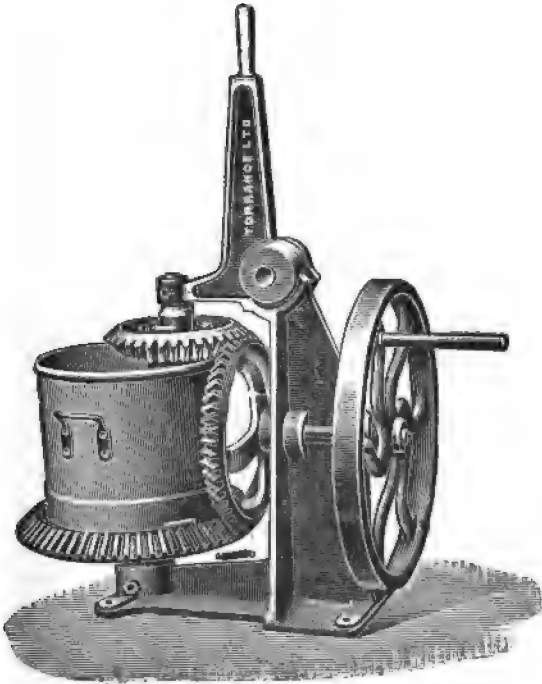


Fig. 4.

manufacturers are able to send out their paints so beautifully fine and cheap because they have

powerful machinery for handling them. Now, painters who do any considerable trade will always find it to their advantage to use a paint mixer. One is shown in Fig. 4, of English make;



Fig. 5.

but there are many others on the market that can be had without difficulty for a few dollars. The one shown in the illustration will hold five gallons, and a study of the cut shows that the

paint holder revolves in one direction, while the stirrers inside revolve in another direction, thus mixing up the materials completely and in a very short time. A useful appliance for every paint shop is a handy paint mill, such as is shown in Fig. 5. It is very useful for grinding up the hard and dry paint which cannot be avoided, even in the best regulated shops, and, if properly used, it saves its cost in a year.

Brushes.

One of the chief difficulties which many young painters have to deal with is in connection with the brushes they use. Frequently they use but common brushes, under the mistaken notion that it is economical to do so, while, in fact, the exact reverse is true. In the first place, it is impossible to do good work with bad tools. Even the most expert workman cannot be expected to "lay off" a coat of paint evenly and quickly if he has a brush which consists of a good deal of horse hair instead of hogs' bristles, because such a brush lacks spring and elasticity. Moreover, cheap brushes last a very little time compared with those of good make. Possibly brushes of

inferior quality are sold so quickly simply because those who purchase and use them do not know how to keep them properly when not in use. A few hints on this important subject will therefore be welcomed by the reader.

Writing Pencils.—Writing pencils should be washed in turpentine until quite clean and until every particle of paint is removed from them. They may then be placed aside and will be ready for use the next day. If they are not to be used again for some time they should be dipped in olive oil and smoothed between the thumb and finger from heel to point.

Stipplers.—These brushes cost a good deal of money, and for that reason should receive great care. The manner of keeping them, however, is simple. They should be washed with pure soap and hot water, well rinsed afterward in cold water and then placed bristles downward to dry. It is advisable not to allow the bristles to support the brush, and a good plan to avoid this is to make a box in which they can slide.

Varnish Brushes.—The general practice is to keep these brushes in turpentine. This is a great mistake. They should be kept in boiled oil or

varnish; and on no account must they rest on their bristles but should be suspended by the the handle. It is advisable that varnish brushes be kept, as far as possible, in exactly the same kind of varnish as that in which they are intended to be used.

Paint Brushes.—These brushes should before using be steeped in water to swell the bristles in the binding, and so prevent them from falling into the paint or on the work. After a thorough soaking the brush should be taken out of the water and well dried. They are then ready for use.

Some authorities do not recommend putting a brush in water to soak, as a quantity of water is likely to be retained in the inside of the bristles (which are hollow), to the detriment of the brush.

After brushes have been used they should be thoroughly cleaned in turpentine or soap and water. If a brush becomes hard it should be soaked in raw linseed oil for twenty-four hours and then washed out in hot turpentine. Varnish brushes should never be used in paint, nor paint brushes in varnish.

By a little care in keeping brushes they will last a considerable time, provided that good ones are bought at the beginning, and that they are really made of pure hogs' bristles.

Tints and Shades.

It will be understood that in mixing a color it may be made either lighter or darker by adding white or black. The result of the addition of white to any color is called a "tint," and the addition of black produces what is termed a "shade." As a rule, it is dangerous to add black to a color because it will not often produce what is wanted. If a color is too bright it can be toned down by adding what is called its "complimentaries."

Without going into the subject of color harmony or theoretical color to any extent, we may take the three primary colors, which are red, blue and yellow. If a red is too bright it can be toned down by the addition of a little blue and yellow; if a blue is too bright, a little red and yellow will take off its keenness; while if yellow is too bright, a little blue and red added will tone it down nicely. This is an important

hint, because painters so frequently, when they are mixing colors, fail to obtain the right shade, and then proceed to add white, which makes the color too weak. Then they add black, which causes the color to be further away than ever from what is wanted.

Sometimes a scheme of decoration is carried out in what is called "self-colors." This means that any color is taken, say sienna, and that the self-same color is employed in varying tints, that is, with more or less white added in various portions of the decoration. For example: We have made a room with pure sienna border, a considerable amount of white added for the main walls and less white on the frieze. Such schemes of decoration have the advantage of being simple in character, easy to produce, and within the scope of those who have not had considerable experience in decorative matter.

CHAPTER II.

Reds.



THE average conception of what a red is would probably come closer to a crimson than a true red. If the reader will take the trouble to buy a cake of water color called "light red" he will find it to be something very similar to burnt sienna. A true red is much nearer crimson; in fact, vermilion, a color which every one knows, is, perhaps, as correct a red as one could have. The very bright reds are mostly made from aniline dyes and are not permanent, although if a coat of varnish be applied over them they will last almost, if not quite, as long as true vermilion.

In the following list the principal reds are mentioned, and it may be stated generally that mixtures are not desirable when a bright red is required. It is much better to buy exactly the shade desired. At the same time one frequently has occasion to brighten a red or to make it less

bright. If it is too bright a little blue and yellow added will lower it nicely; but on no account must black be added or the tone of the color will be spoiled. To brighten red add orange, carmine or madder. Try this with a small quantity of paint as an experiment.

Apricot.—This color might perhaps be more properly included under the heading of yellow, it being a deep, dull orange red. It can be obtained by mixing chrome yellow with a little vermilion and adding a very little lake or carmine.

Blood Red.—This can hardly be said to be a well-known color, yet sometimes a color is called for under this name. It may be produced by taking bright red, and adding a little black until the desired tone is obtained.

Brick Red.—Brick color means, of course, the color of red bricks. Add two parts of French ochre to one part of white lead and one part of Venetian red. If this is too bright add more ochre.

Carnation Red.—This beautiful and brilliant color is obtained by mixing three parts of carmine and one part of white lead. The brilliancy is added to if zinc white is used instead of white

lead. This color is somewhat fugitive, hence not suitable for outside use.

Cherry Red.—Mix crimson lake, raw sienna and azure blue, or take two parts of vermilion and one part of chrome.

Claret.—This color may be obtained by mixing carmine with ultramarine blue.

Flesh Color.—There are several ways of obtaining this color. Orange, such as middle chrome yellow, added to white produces a flesh color ; but a better mixture is a little yellow ochre and a touch of Venetian red added to a considerable quantity of white as a base. Vermilion is sometimes used, but this is too bright.

Geranium.—This color is best produced by lightening up Indian red and glazing with madder lake, that is, giving a final or covering coat of that lake, which, being transparent, allows the under red to show through.

Old Rose.—Tint white lead with French ochre, Italian red and lamp black.

Peach Bloom.—Indian red, or preferably Venetian red, added to white lead gives this tint.

Purple.—Ultramarine and vermilion added to a little white gives a rich purple.

Rose.—If this color is to be used inside, carmine added to white lead will give a beautiful tint. This color will not last out of doors.

Salmon.—Mix together one part of vermilion and six parts of white lead and then add a little lemon chrome yellow.

Scarlet.—This is the name of a well-known bright red which is best purchased ready made. It can, however, be imitated by mixing bright vermilion with orange chrome and white.

Wine Color—A little ivory black added to a mixture of carmine and vermilion will give this color.

CHAPTER III.

Blues.



THE reader is advised to take samples of the following blues to commence with in order to compare them, viz.: Prussian blue, ultramarine, cobalt, indigo and Brunswick blue. Now mix with each a little white and then a larger proportion of white and note the difference in tone. Cobalt is very near ultramarine in shade.

On the whole, Prussian blue is the most useful blue employed by the house painter; in fact, it is doubtful whether there is a more useful color employed in the trade. If it is of good quality it is very strong and a little of it will go a long way. Its strength leads to its adulteration to a considerable degree.

The writer remembers a case which occurred some years ago, of a painter who had used a certain adulterated Prussian blue, and had been in the habit of adding a little to his batches of

white in painting outside work, such as sashes; this blue, of course, being added to remove the yellow cast which white lead invariably possesses. He was persuaded to use a new make which cost a cent or two more a pound, but was very much stronger. He added this to the usual quantity and was astounded to find that instead of white he had a distinct sky blue! Prussian blue is sometimes used for a body color; but, if pure, it is generally necessary, owing to its great strength, to reduce it considerably.

Cobalt.—This is an expensive color, and there are one or two substitutes on the market which are well worth the attention of painters. A warning should here be given concerning ultramarine, which must never be mixed with white lead, or any pigment containing lead, chrome yellow, for instance, as a chemical action will take place, owing to the sulphur contained, which will result in the mixture losing its tone to a great extent, and becoming a dull, muddy color. A painter told the writer once that he had mixed ultramarine with lead for years, and never found it change color in the least; but an investigation showed that the so-called white

lead was not white lead at all, but zinc mixed with a large proportion of barytes.

Azure Blue.—A little ultramarine mixed with zinc produces this useful color.

Blue Grass Tint.—This is as much a green as it is a blue, and is made by mixing three parts of Paris green with seven parts of white lead and one part of Prussian blue. The green being very transparent, although brilliant, and the blue very strong, a peculiar tint is obtained that can hardly be produced in any other way.

Bronze Blue.—This may be made by mixing three parts of black with one part of Prussian blue. This gives what may be looked upon as almost black with a blue cast. Of course, if a bright color is desired, more blue must be added or a greater quantity of white.

Brunswick Blue.—This may be bought ready made. It can be looked upon as simply a Prussian blue lightened with white.

Celestial Blue.—This name is given to a somewhat greenish blue, which may be made by mixing equal parts of chrome green, Prussian blue and white lead, although more white lead may suit the wants of some painters best.

French Blue.—This is the name applied to the best quality of artificial ultramarine. Ordinary ultramarine blue, mixed with one part of chrome green and four parts of white will approximately give the color.

Heliotrope.—Mix together eight parts of zinc white, three parts of scarlet or other bright red and four of ultramarine.

Lavender.—Ultramarine with a little carmine added to zinc will give a very good lavender for inside work. For outside work, use ultramarine and white lead mixed with a little carmine and ivory black.

Marine Blue.—This is a very dark blue which is obtained with one part of ultramarine and six parts of ivory black.

Mauve.—Four parts of oxide of zinc and one part of carmine lake gives an excellent mauve, but blue, red and white mixed in practically any proportions in which the blue predominates will give a tint which might not improperly be thus named.

Nile Blue.—This is a pale greenish blue which may be obtained by mixing Prussian blue and chrome green with white.

Oriental Blue.—Mix twenty parts of white lead and two parts of Prussian blue and one part of lemon chrome yellow.

Peacock Blue.—This is best made by taking cobalt as a base and adding a little white and a little Chinese blue.

Pompeian Blue.—Tint white with ultramarine; add a little vermillion and Italian ochre.

Porcelain Blue.—Mix one part each of zinc white and chrome green with four parts of ultramarine blue and add a touch of black.

Robins' Egg Blue.—Tint white with ultramarine and tinge with a little lemon chrome green.

Royal Blue.—This is a very rich color which may be bought ready made. It may be imitated by adding a little white to Prussian blue with a touch of crimson lake.

Sky Blue.—This is obtained simply by adding a little Prussian blue to white, say one part to one hundred. If a very fine tone is required, cobalt should be used instead of Prussian blue.

Torquoise Blue.—Two parts of cobalt blue, one part of emerald green and twelve parts of white lead.

CHAPTER IV.

Yellows.

AT the present time various yellow tints or hues are very popular in the United States. Indeed, for a good many years past yellow has remained a favorite. It is well, therefore, that the reader should make himself fully acquainted with the different varieties of yellow and how they may be obtained. The painter should take the following yellows and experiment with them.

Take chrome yellows, Nos. 1, 2 and 3, or what are sometimes called "light," "medium," and "orange." Take a little cadmium yellow and some yellow ochre. Put aside, also, a little burnt sienna and Venetian red. Now add a little linseed oil to each of the yellows and spread them out separately with a palette knife. Compare with the others carefully and note the difference between them. It will be seen that the orange chrome, for example, approaches a red in hue,

while the light yellow or canary chrome has often a distinct greenish cast.

Next add a little of the Venetian red to each and see the difference it makes. When added to the orange chrome the difference can hardly be seen, while its addition to canary chrome gives a distinct richness, although it causes it to lose the particular distinguishing characteristic of that color. The painter may go on almost indefinitely with these different experiments, comparing one with the other and noting carefully the difference which the addition of a little red, black, green or other color makes. It is hardly too much to assert that an hour each day spent in this way for a week will yield information of lasting service and enable the painter to mix with a much greater facility than he could do by merely studying a particular color which it is desired to match. In other words, it is like learning the A B C of the business.

We will now give a few of the chief yellow colors which are in most demand.

Amber. — Orange chrome, burnt sienna and burnt umber should be added together in equal proportions and then a little black added. This

should then be used to tint white lead in sufficient quantities to obtain the amber color required.

Brass Yellow.—This color is, of course, simply bright, strong yellow. It may be made by mixing white lead and canary chrome yellow in proportions of about ten of the former to one of the latter, and then adding a little raw umber or a little burnt umber. Some painters prefer to mix French chrome and medium chrome yellow.

Bronze.—This color perhaps hardly comes under the head of yellows, although it is difficult to find a more appropriate heading. Mix one part of orange chrome with two parts of strong green and add this to about three times the quantity of black.

Bronze Yellow.—This is best obtained by mixing chrome yellow and orange ochre and adding a little burnt umber.

Buff.—Buffs and creams are very difficult to distinguish from one another. That is to say, there is no clear line of demarkation between the one and the other. An ordinary buff is made by tinting white lead with yellow ochre in the proportion of about two of lead to one of ochre.

Sometimes a little black is added, or a little dull red; but as a rule the buffs are obtained simply by mixing white and ochres.

Buttercup.—This bright yellow is easily made by mixing light chrome with white lead.

Canary.—Some color manufacturers have an extra light chrome which they sell under this name. It can, however, be prepared by mixing three parts of yellow chrome and one part of zinc white.

Cream.—A touch of Venetian red added to French ochre and white, and varying in proportions, gives a variety of creams.

Daffodil.—Mix lemon chrome with a little Venetian red.

Ecru.—French chrome and medium chrome yellow mixed with white lead gives a good ecru, but some painters prefer to use black, yellow and Brunswick green with white.

Ivory.—A very little golden ochre added to white lead gives an ivory color. If antique ivory is required it can be obtained by painting the wood work white and then taking a little black japan, thinning it down with turpentine, stirring in a little chrome yellow, which will give it a

slightly greenish cast. "Flow" this over the work, wipe it off, allowing it to give an antique appearance to the corners.

Jonquil Yellow.—Sixteen parts of white lead, two parts of light red, one part of indigo and a considerable amount of chrome yellow gives this color; but many color makers simply add a little vermilion to chrome yellow to get it.

Lemon.—Lemon chrome yellow can be obtained so easily that it is rarely that one desires to mix this color. A variety of tints can, of course, be obtained by adding white lead to chrome yellow until the desired color appears.

Light Deck.—This is obtained by mixing lemon chrome yellow, medium chrome yellow and white in about equal proportions. Sometimes ochre only is used.

Manila.—This color, which is sometimes called "deep deck," is made by tinting lead with yellow chrome.

Marigold.—This is obtained by mixing a little bright red with orange chrome until the desired hue is obtained.

Old Gold.—This may be made by mixing ochre and burnt sienna, or, if a better tint is wanted,

use medium chrome with a little vermilion and burnt sienna and add a very little black.

Olive Yellow.—Take three parts of burnt umber and one part of lemon chrome yellow and olive yellow will be obtained, which may be varied in tint according to the quantity of yellow added.

Orange.—This is simply orange chrome yellow, which is one of the commonest colors on the market.

Primrose Yellow.—Lemon or light chrome should be used by itself.

Stone Color.—White mixed with French yellow ochre and a touch of burnt umber gives this, or a little raw umber may also be added.

Straw.—This is obtained by tinting white lead with chrome yellow; if too vivid, add a little French ochre.

Zinc Yellow.—This is a made color which has the advantage that it may be mixed with any other pigment without being influenced.

CHAPTER V.

Browns.

BROWNS may be said to vary from colors which are nearly yellow down to those which are of a distinct reddish hue. Ordinary browns may be said to range from such colors as umber, which is a deep, rich brown, to sienna. An ordinary sienna is a typical brown. When these colors are used for painting the outside of frame houses, in combination with yellows and various shades of olive green, it is usually best to keep them somewhat dull in tone. There are many ordinary browns which might be termed deep yellows; and there is a wide range of deep, dull reds which might be called the principal browns in common use.

Auburn.—Mix three parts of golden ochre with one part of burnt umber, and add to this, say, twenty parts of white lead.

Brunswick Brown.—This color is sold under this name, but an imitation can readily be ob-

tained by mixing one part of orange chrome yellow and one part of yellow ochre, adding black until the desired shade is obtained.

Bronze Brown.—This is a very dark color of a greenish cast. Black, colored with orange chrome and some bright green, may be used. An excellent bronze brown, which is somewhat transparent, is made by adding chrome green and orange to black japan.

Chestnut Brown.—Two parts of Venetian red and four parts of medium chrome, with a little ochre, will produce a good chestnut.

Chocolate.—Five parts of burnt sienna and one of carmine give a very rich chocolate. A less expensive color is obtained by mixing Indian red and lamp black with a little yellow ochre.

Coffee Color.—To produce this color mix together one part of burnt sienna, two parts of yellow ochre and five parts of burnt umber.

Copper.—Two parts of medium chrome yellow, one part of Venetian red and one of black gives a good copper color. Zinc white, tinted with French ochre, Italian sienna and lamp black is preferable.

Doe Color.—This is readily obtained by adding

to raw sienna a little burnt umber and white lead.

Drab.—There is a very wide range of drabs made by tinting white lead with burnt umber and Venetian red. Raw umber may also be used.

Fawn.—This is a deep drab, and is made by mixing eight parts of white lead, one part of chrome yellow, one of Indian red and one of burnt umber; or white lead may be tinted with a mixture of French ochre, Indian red and lamp black.

Leather Brown.—One part of blue black, two parts of white lead, three parts of Venetian red and four parts of yellow ochre give this color. Less black may be used if desired.

Olive Brown.—This is easily obtained by mixing three parts of burnt umber with one of orange chrome yellow, or lemon chrome yellow may be used to tint raw umber.

Orange Brown.—Two parts of orange chrome yellow mixed with three parts of raw sienna give this color.

Sienna Brown.—Italian burnt sienna and raw ochre mixed with pure zinc white or white lead if desired.

Wall-flower Brown.—This is made by a mixture of medium chrome yellow and lake. Another way of producing it is to mix together crimson lake and burnt sienna, and adding medium chrome until the desired color is obtained.

CHAPTER VI.

Greens.



HERE is perhaps no more useful series of colors than the greens which are now used so extensively in painting frame houses. There is no limit to the number of shades and tints which may be produced; and all that one has to do is to vary their yellows or blues in order to obtain a green bright, strong or dull, as may be desired. The painter who wants to master the subject of greens should proceed upon the lines previously recommended, namely, those of experimenting, and take Prussian blue and mix this with orange chrome yellow, and then take the same quantity of blue and mix it with other shades of chrome. Note the difference in shade, and then, still using Prussian blue, next proceed to add yellow ochre, then burnt sienna, in fact, all sorts of yellows, but the same quantity of blue in each case. Next add a little black.

Having proceeded thus far, the young painter will have attained knowledge of most of the important greens. Next, he should start again with medium chrome yellow and mix it with various blues, such as ultramarine, indigo, etc. Here, again, a little black may be added, also a little white. Some of the better greens are obtained by adding black to yellow, which gives a greenish cast. It should be noted here again that ultramarine blue must never be added to white lead, as the sulphur contained in the latter will cause the mixture to turn black. It must not be forgotten that Prussian blue is a very strong color, and that a little of it goes a long way. It is best, therefore, to mix first in very small quantities so as to prevent waste. The following is a list of the principal greens in ordinary use.

Blue Green.—Medium chrome green, lightened up with considerable white gives a perfect blue green.

Bottle Green.—Five parts of medium chrome green, with one of blue black, gives this color.

Bronze Green.—This very useful green is obtained by mixing either black or indigo with

orange chrome yellow. A lighter bronze may be obtained by using lemon chrome.

Chrome Green.—This color may be bought ready-made, but it may be imitated by adding Prussian blue to lemon chrome yellow in the proportion of about one part of blue to sixteen parts of yellow.

Emerald Green.—This is a well-known color, usually called in the United States "Paris green," and is largely used as an insecticide. It cannot be imitated successfully, but medium chrome green lightened up gives a bright color which may be substituted if nothing better can be found.

Grass Green.—Medium chrome green lightened up with a little chrome yellow gives this color.

Ivy Green.—This is produced by a mixture of French ochre, lamp black and Prussian blue.

Moss Green.—Take medium chrome green and lighten it up with white lead, adding a little French ochre and a very little lamp black.

Olive Green.—There is a wide range of olive greens varying in depth. Ten parts of chrome yellow, one part of Prussian blue and one part of light Indian red give an olive; but some painters

prefer to add Prussian blue and black to chrome yellow, while others prefer, instead, to add a little yellow ochre.

Pea Green.—Chrome green lightened up with about thirty or forty parts of white lead gives a pale bright green usually recognized by this name.

Sage Green.—This is best produced by mixing French ochre, lamp black and Prussian blue with white or raw umber; chrome green added to white lead may also be used.

Seered Green.—Tint white lead with French ochre, medium yellow chrome and a little bright green.

Venetian Green.—Add to dark chrome green sufficient white lead to produce desired tint.

Willow Green.—Tint white lead with medium chrome green, and add a little burnt umber or ivory black.

CHAPTER VII.

Greys.



“GREY” is a mixture of black and white, and may vary from the smallest quantity of black added to white to the other extreme, where a small quantity of white is added to black. Various colors are added to the mixture of black and white, producing a number of greys.

Dark Grey.—This is usually obtained by mixing black and white with a little orange chrome or red.

French Grey.—A little ivory or drop black used to tint white, with a very little carmine or crimson lake and ultramarine, gives a very pretty French grey. The particular cast should be, in the words of a writer, just published, “French grey is often described as a tint which is neither blue nor red, but suggests both.”

Granite.—Add French ochre and lamp black to white lead.

Grey Drab.—This may be produced by mixing five parts of black with four parts of white and adding a little orange chrome yellow.

Lead.—This is a dark grey which may be made by adding a little black to white, with sufficient Prussian blue to give the desired tint. Blue black or indigo may be used if desired.

Light Grey.—One part of Prussian blue, one part of lamp black and from ten to twenty parts of white lead give varying shades of light greys.

Mouse Color.—A little blue and yellow added to black will produce this color; but burnt umber and a little Prussian blue added to from twenty to thirty times the bulk of white lead answers well.

Opal Grey.—Add burnt sienna to cobalt blue and white.

Pearl.—This color is produced in the same way as French grey, but is much lighter.

Silver Grey.—This is a delicate tint of a distinctly bluish cast. Ivory and black may be employed to produce it by tinting white; but a little Venetian red is sometimes used.

Slate.—A mixture of about one part of Prus-

sian blue to about twelve parts of black added to a little white will give this color.

Steel Grey—This is made from white lead and lamp black to which has been added a little light chrome and orange chrome.

Warm Grey. — Tint white lead with French ochre and lamp black.

CHAPTER VIII.

Colors Made from Black Japan.



ANY painters of great experience are not aware that a number of excellent colors can be obtained by the use of black japan or asphaltum varnish; but a few experiments will quickly show that many such colors, most useful in actual work, can be produced by means of this material.

It is well to observe that, strictly speaking, asphaltum is not permanent, and that in time it fades; but if a good, round coat of varnish is applied over it, it will last for a very considerable length of time.

A bright red, such as vermilion, etc., gives, when mixed with japan black, a rich red which is very useful at times. Yellow added to it gives a neutral green; in fact, any bright color may be added to produce a variety of different colors.

When the painter is called upon to decorate relief material, such as Anaglypta, etc., he will


find that a color produced by mixing japan is very useful; but he must bear in mind the necessity of adding plenty of turpentine, which will cause the color to possess a transparency depending for its depth upon the quantity of turpentine added.

On the other hand, if body is required it may be obtained by adding sufficient drop black.

Every painter should experiment with the above because he will find some surprising effects obtainable.

CHAPTER IX.

Displaying Colors.

HE ready-mixed paint manufacturers of the United States have for a good many years past vied with each other in producing aids for the painter in using their goods; and many of them send out "color combinations," consisting of pieces of painted paper stuck down upon cards, and giving out color schemes for use in frame buildings.

These are somewhat expensive to produce, but the painter who reads this should get all he can, for reference as well as for experiment. As a rule, they are too small to prove of much actual service, excepting to those who are well acquainted with colors and paints.

Now, the painter who is called upon to paint the outside of a house will find that he will get the order much more readily if he can give his customer some idea of how the house will look when it is completed. The customer is usually

shown some small samples of paint, and is expected to make his selection from them. It can hardly be wondered at that disappointment often results. What the practical, ingenious and clever reader ought to do is to prepare such samples that will convince a probable customer that he is well posted on color schemes.

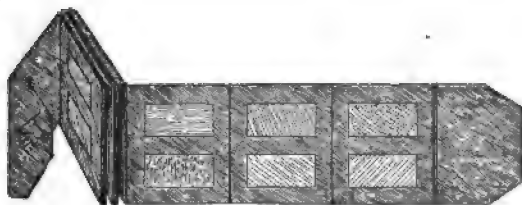


Fig. 6.

In Fig. 6 is shown a device invented by "Mr. F. Scott-Mitchell, an eminent English authority, which is intended to be used to show the colors of dado, frieze and wall space, different colors being used on the panels, as may be desired. It will be observed that this device folds up so as to be easily carried. Something of the same kind might readily be prepared by the practical man, showing colors suitable for outside work.

CHAPTER X.

Color Harmony.

IN this little book it is impossible to deal with the subject of color harmony in anything like a complete manner, but a few hints on the subject may prove useful.

If it is desired to color the woodwork of a room in a hue which will go well with the wall-paper, the usual plan is to take the prevailing tint or color on the wall-paper, and to use this on the doors and other woodwork. As a rule, the stiles and rails may be darker than the panels, and if it is thought advisable, a third color may be introduced on the moulding. For example: If the paper be of a light green ground, with a floral pattern printed in darker green, and perhaps with a small pink flower, the following scheme would answer well. The stiles and rails could be green lighter than the ground, but, as a rule, not so dark as the floral pattern. The panels might be quite light, but not lighter than the

ground, unless the ground be particularly light, then pink might be used on the mouldings.

If it be a delicate pink the whole of the mouldings may be colored; but if of a strong color then it would be better to color with pink only a small section of the moulding, following round a few combinations, which will prove effective, both for inside and outside work.

With yellow, plum color, slate or brown may be used.

Orange goes well with a purple tone of red, and a canary colored surface will contrast nicely with a vermilion color or deep ivory.

Terra cotta goes well with buff, sage green and Indian red or vermilion; while a deep purple contrasts well with shades of olive green, Venetian red and lilac.

A grey green ground is brightened up with a primrose color; a scarlet tone being introduced into the mouldings and trimmings.

A pea green is toned down nicely by contrast with a chocolate and a lavender, while a grey agrees with a salmon color as well as with a deep blue.

INDEX.

The names of the colors printed in *italics* are those which may be obtained in dry powder form from the majority of paint dealers. These colors are mentioned in the text of the book, hence a list of them will be found useful for reference. These colors are given in their alphabetical order as well as under the group, such as reds, blues, etc., to which they belong.

<i>amaranth lake</i> —a red	
amber	32
<i>Antwerp blue.</i>	
apricot	23
<i>asphaltum, Egyptian</i> —a brown	
auburn	37
azure blue	28
<i>Berlin blue</i>	
<i>Berlin red</i>	
<i>bistre</i> —a brown	
<i>blacks</i>	
<i>black lake</i>	
<i>blue black</i>	
<i>cork black</i>	
<i>Frankfort black</i>	
<i>ivory black</i>	
<i>lamp black</i>	
<i>plate black</i>	
blood red	23
<i>blue black</i>	
blue grass tint	28

blue green	43
<i>blue lake</i>	
blues	26
<i>blues</i>	
<i>Antwerp</i>	
<i>Bremen</i>	
<i>blue lake</i>	
<i>cerulean</i>	
<i>Chinese</i>	
<i>cobalt</i>	
<i>celestial</i>	
<i>indigo</i>	
<i>Italian</i>	
<i>mineral</i>	
<i>Paris</i>	
<i>permanent</i>	
<i>Prussian</i>	
<i>steel</i>	
<i>ultramarine</i>	
<i>bone brown</i>	
bottle green	43
brass yellow	33
<i>Bremen blue</i>	
brick red	23
<i>brilliant yellow</i>	
bronze	33
bronze blue	23
bronze brown	33
bronze green	43
bronze yellow	33
<i>brown madder</i>	
<i>brown ochre—a yellow</i>	
<i>brown red</i>	
browns	37
<i>browns</i>	
<i>asphaltum, Egyptian</i>	
<i>bistre</i>	
<i>bone brown</i>	
<i>brown madder</i>	

browns continued

<i>burnt sienna</i>	
<i>burnt terre verte</i>	
<i>burnt umber</i>	
<i>cappah brown</i>	
<i>Cassel earth</i>	
<i>Cologne earth</i>	
<i>Mars brown</i>	
<i>mummy</i>	
<i>Prussian brown</i>	
<i>raw umber</i>	
<i>sepia</i>	
<i>vandyke brown</i>	
<i>verona brown</i>	
Brunswick blue	28
Brunswick brown	37
brushes	17
buff	33
<i>burnt carmine—a red</i>	
<i>burnt lake—a red</i>	
<i>burnt Roman ochre—a red</i>	
<i>burnt sienna—either a brown or a red</i>	
<i>burnt terre verte—a brown</i>	
<i>burnt umber—a brown</i>	
buttercup	84
<i>cadmium yellow</i>	
canary	84
<i>cappah brown</i>	
<i>carmine—a red</i>	
<i>carmine, burnt—a red</i>	
carnation red	28
<i>Cassel earth—a brown</i>	
celestial blue	28
<i>cerulean blue</i>	
cherry red	24
chestnut brown	38
<i>Chinese blue</i>	
<i>Chinese white</i>	
chocolate	38

<i>chrome red</i> —a yellow	
<i>chrome green</i>	43
<i>chrome yellow</i> —pale, medium and deep	
<i>citron yellow</i>	
<i>claret</i>	24
<i>cobalt</i> —a blue	27
<i>cobalt green</i>	
<i>coffee color</i>	38
<i>Cologne earth</i> —a brown	
<i>color harmony</i>	52
<i>colors, displaying</i>	51
<i>colors from black Japan</i>	48
<i>colors, self</i>	21
<i>copper</i>	38
<i>cork black</i>	
<i>cream</i>	34
<i>Cremnitz white</i>	
<i>crimson lake</i> —a red	
<i>daffodil</i>	34
<i>dark green</i> —see bronze green	
<i>dark grey</i>	45
<i>deck, deep</i>	25
<i>deck, light</i>	35
<i>doe color</i>	38
<i>dove, see stone color</i>	
<i>drab</i>	39
<i>drab, grey</i>	46
<i>Dutch pink</i> —a yellow	
<i>ecru</i>	34
<i>emerald green</i>	43
<i>fawn</i>	39
<i>flake white</i>	
<i>flesh color</i>	24
<i>Florentine lake</i> —a red	
<i>Frankfort black</i>	
<i>French blue</i>	29
<i>French grey</i>	45
<i>gamboge</i> —a yellow	
<i>gaude lake</i> —a yellow	

geranium	24
geranium lake—a red	
gold, old	35
gold ochre—a yellow	
granite	45
grass green	43
greens	41
greens	
chrome	
cobalt	
emerald or Paris	
green lake	
malachite	
mineral	
permanent	
sap	
terre verte	
ultramarine	
Victoria	
verdigris	
zinnober	
zinc	
greys	45
harmony, color	52
heliotrope	29
imperial orange—a yellow	
Indian lake—a red	
Indian yellow	
indigo—a blue	
Italian blue	
Italian pink—a yellow	
ivy green	43
ivory	34
ivory black	
jonquil yellow	35
king's yellow	
lamp black	
lavender	29
lead	46

lead, white	7
leather brown	39
lemon	35
<i>lemon yellow</i>	
light deck	35
light grey	46
<i>light red</i>	29
lilac—see French grey	
<i>madder carmine</i> —a red	
<i>madder lake</i> —a red	
<i>magenta lake</i> —a red	
<i>malachite green</i>	
manila	35
marigold	35
marine blue	29
<i>maroon lake</i> —a red	
<i>Mars brown</i>	
mauve	29
<i>mineral blue</i>	
<i>mineral green</i>	
mixing colors	10
mixing paints	7
mouse color	46
moss green	43
<i>mummy</i> —a brown	
mustard—see primrose yellow	
<i>Naples yellow</i>	
Nile blue	29
Nile green—see pea green	
ochre	8
<i>ochre, burnt Roman</i>	
<i>ochre, yellow</i>	
old gold	35
old rose	24
olive brown	39
olive green	43
olive yellow	36
opal grey	46
orange	26

INDEX.

61

orange brown	20
<i>orange, vermilion—a red</i>	
Oriental blue	30
<i>Oxford ochre—a yellow</i>	
paints, mixing	7
paints, straining	12
<i>Paris blue</i>	
<i>Paris green</i>	
pea green	44
peach bloom	24
peacock blue	30
pearl	46
<i>permanent blue</i>	
<i>permanent green</i>	
<i>perfect yellow</i>	
<i>pink madder—a red</i>	
<i>plate black</i>	
Pompeian blue	30
porcelain blue	30
primrose yellow	36
<i>Prussian blue</i>	
<i>Prussian brown</i>	
purple	24
<i>purples</i>	
<i>mauve lake</i>	
<i>purple lake</i>	
<i>royal purple</i>	
<i>violet</i>	
<i>raw sienna—a yellow</i>	
<i>raw umber—a brown</i>	
reds	20
<i>Reds</i>	
<i>amaranth lake</i>	
<i>Berlin red</i>	
<i>brown red, French</i>	
<i>burnt carmine</i>	
<i>burnt lake</i>	
<i>burnt Roman ochre</i>	
<i>burnt sienna</i>	

Reds—Continued

<i>Florentine lake</i>	
<i>geranium lake</i>	
<i>Indian lake</i>	
<i>light red</i>	
<i>madder carmine</i>	
<i>madder lake</i>	
<i>magenta lake</i>	
<i>maroon lake</i>	
<i>Munich lake</i>	
<i>orange vermilion</i>	
<i>pink madder</i>	
<i>rose madder</i>	
<i>scarlet lake</i>	
<i>scarlet vermilion</i>	
<i>Turkey red</i>	
<i>terra rosa</i>	
<i>vermilion</i>	
<i>Venetian red</i>	
<i>Vienna lake</i>	
<i>Victoria lake</i>	
royal blue	30
robin's egg blue	30
rose	25
rose, old	24
rose madder—a red	
royal purple	
Roman ochre—a yellow	
sage green	44
salmon	25
sap green	
scarlet	25
scarlet lake—a red	
scarlet vermilion—a red	
sea green—see pea green	
seered green	44
self colors	21
sepia—a brown	
shades	20

shamrock green—see Venetian green	
sienna brown	
<i>sienna, burnt</i> —a red	
<i>sienna raw</i> —a yellow	
signal red—see vermillion	
silver grey	46
<i>silver white</i>	
sky blue	30
slate	46
<i>steel</i> —a blue	
steel grey	47
stone color	36
straining paints	12
straw	36
tea green—see olive green	
teak brown—see sienna brown	
terra cotta—see sienna brown	
<i>terra rosa</i> —a red	
<i>terra verte</i> —a green	
tints	20
torquoise blue	30
<i>Turkey red</i>	
<i>ultramarine</i> —a blue	
<i>ultramarine green</i>	
<i>umber, burnt</i> —a brown	
<i>umber, raw</i> —a brown	
<i>Vandyke brown</i>	
<i>Venetian red</i>	
Venetian green	44
<i>verdigris</i> —a green	
<i>vermillion</i> —a red	
<i>Verona brown</i>	
<i>Victoria green</i>	
<i>Victoria lake</i> —a red	
<i>Vienna lake</i> —a red	
<i>violet</i> —a purple	
wall flower brown	40
warm grey	47

whites	
<i>Chinese</i>	
<i>Cremnitz</i>	
<i>flake</i>	
<i>silver</i>	
<i>zinc</i>	
willow green	44
wine color	25
yellows	31
<i>brilliant yellow</i>	
<i>brown ochre</i>	
<i>cadmium yellow</i>	
<i>chrome yellow—light, medium and deep</i>	
<i>chrome red</i>	
<i>citron yellow</i>	
<i>Dutch pink</i>	
<i>gamboge</i>	
<i>gaude lake</i>	
<i>gold ochre</i>	
<i>imperial orange</i>	
<i>Indian yellow</i>	
<i>Italian pink</i>	
<i>king's yellow</i>	
<i>lemon yellow</i>	
<i>milori yellow</i>	
<i>Naples yellow</i>	
<i>Oxford ochre</i>	
<i>perfect yellow—pale or deep</i>	
<i>raw sienna</i>	
<i>Roman ochre</i>	
<i>yellow lake</i>	
<i>yellow ochre</i>	
<i>ultramarine yellow</i>	
<i>yellow madder</i>	
<i>zinc yellow</i>	
zinc green	
zinc white	8
zinc yellow	36
zinnober green	

INDEPENDENT OF ALL COMBINATIONS..

EAGLE WHITE LEAD CO.

Established 1843

Corrodors of



WHITE LEAD

by the

Capacity 18,000 Tons
Capital \$2,000,000.00

"Old Dutch Process"

And Manufacturers of

RED LEAD

LITHARGE

AND

ORANGE MINERAL

AGENCIES:

New York City, 54 Maiden Lane, Austin Remsen, Agent.
Philadelphia, 142 N. 4th Street, T. E. Bannan, Agent.
Baltimore, Md., 447 North Street, Geo. O. Shivers, Agent.
Cleveland, O., The A. T. Osborn Co., Agents.
Chicago, Ill., E. B. Bennett, 125-127 North Peoria Street, Agent for
Chicago and the Northwest.
St. Louis, Mo., 706 N. 11th Street, B. P. Temmeyer, Agent.
New Orleans, John R. Todd & Co., 306-310 Gravier Street, Agents.
Kansas City, Mo., W. R. McDonald, Agent.
Buffalo, N. Y., A. S. Goltz, Agent, 16 Builders' Exchange.
Pittsburgh, Pa., The Pittsburgh Paint Snpply Co.
Minneapolis, S. E. Frost, Agent, 206 Nicollet Ave.

A STRONG ENDORSEMENT

"The Carter White Lead Company claim Carter Lead excels other brands in whiteness, fineness, body, durability, and covering capacity. These claims are made by other manufacturers. The Carter Company, unlike others, go to extreme ends in proving their claims; and truly a product that is equal to the most severe test is not to be regarded lightly.

"The results obtained through the use of Carter Lead would indicate that the Carter process has solved the problem of 'perfect corrosion,' and we venture to predict that Carter Lead will in the near future predominate the White Lead market of the country.

"We can honestly recommend Carter White Lead to painters who desire a perfect lead—lead that can be relied upon every time for best results—a lead that is at the same time the most economical, and we predict a great future for the Carter White Lead Company."—From the February issue of "The Western Painter," Chicago.

WHAT MORE NEED BE SAID?

Use Carter Lead and Save twenty-five per cent on your lead bill.



Not in the "Trust."

“THE LEAD WITH
THE SPREAD”

Send for Free Sample

CARTER WHITE LEAD COMPANY, CHICAGO

FACTORIES: CHICAGO -- OMAHA

Wheeling Glass Letter and Novelty Co.

WHEELING, W. VA.



GLASS LETTERS IN
GOLD, SILVER
LUMINOUS
ROMAN GOLD
FROSTED

or any color desired; made in

1½-in, 2-in, 3-in, 4-in, 5-in,
6-in, 8-in, 10-in sizes both fancy
and Egyptian styles.

Why paint a sign that will not give your customer satisfaction when you can make as much money and often more by using our letters instead. Easy to put up and when up will stay. Write for circulars and mail 10c for sample.

No Metallic Paint Like

CLINTON

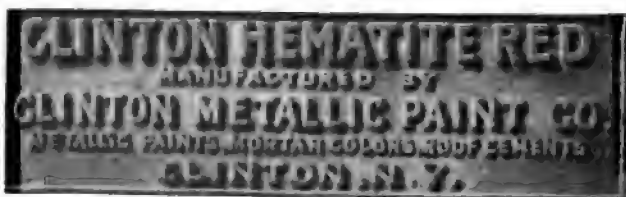
Made at

CLINTON

and by the

CLINTON

COMPANY



Be SURE your packages bear

“Little Yellow Side Labels”

for those mean genuineness
and superiority



..The Plumber..

HAS an advantage over the painter; all the time he employs in doing things or wastes in not doing them, he charges up in his bill.

But the painter works on contract and his bill is limited by his estimate. Consequently the time wasted by his hands in breaking up lead, mixing and matching tints, going back to the shop after fresh supplies—together with the left over odds and ends that go into the slop-barrel, are all so much off his legitimate profit.

Under the best conditions a supernaturally intelligent and abnormally conscientious workman on an average job wastes twenty-five per cent. of his time in such work; with everyday workmen the proportion is still higher.

Just for your own enlightenment try a high grade ready mixed paint on one average job and keep a strict record of all costs for comparison. Personal experience is the best teacher. You will save money, and the ready mixed paint, containing a fair proportion of zinc, will go farther, look better, and last longer than straight lead. It's worth trying.

The **NEW JERSEY ZINC CO.**

No. 71 BROADWAY....NEW YORK.

Our Practical Pamphlets Free:

"The Paint Question," "French Government Decrees,"

"PAINT: How, Why and When."

We do not grind zinc in oil. List of manufacturers of zinc white paints will be furnished on request.

GUARANTEED AS REPRESENTED
THURSTON'S
SYNTHETIC
TRADE MARK
SHELLAC
 EQUIVALENT OF WOOD ALCOHOL SHELLAC
NOT GENUINE WITHOUT THIS LABEL

Dries in from one to three hours.
 Will sand without gumming paper.
 But slightly raises grain of wood.
 Requires less sanding than wood shellac.
 Works freely under brush; will not pull.
 Can be used upon large surfaces.
 Will not show laps or streaks.
 Has exceptional covering capacity.
 Clears perfectly mahogany water stain.
 Will kill stains and knots.
 Free working sample on request.

F. W. THURSTON & CO.
SOLE MANAGERS
CHICAGO.

F. W. THURSTON & CO.
 CHICAGO

Manfgs. and Importers Shellac Gum, Shellac Varnish, Glue,
 Bronze Powders, Pumice Stone, Rotten Stone, Wood
 Alcohol, Steel Wool, Wood Stains, Etc.

“NICE”

Liquid and Paste FILLERS.

Superior

**Interior and Exterior
Varnishes and
Wood Finishes**

~ ~ ~

**Agate Finish — For Floors,
Light Hard Oil Finish.**

~ ~ ~

Highest Quality — Always.

EUGENE E. NICE,
PHILADELPHIA.

WHITING



Taintor's Westminster Paris White.....
Taintor's Victoria Paris White.....
Taintor's American Paris White.....
Taintor's Extra Fine Gilder's Air Dried....
Taintor's X. X. Gilder's.....
Taintor's Commercial.....

MANUFACTURED BY

H. F. Taintor Mfg. Co.
NEW YORK

Ask your ..
..Jobber for **TAINTOR'S WHITING**

IT IS THE BEST MADE and
once used you will buy no other

To secure best results always use the bolted—it is like flour—and mixes quickly and thoroughly.

WESTMINSTER Brand is made from English cliffstone and is the most perfect Paris White made. The process really commences where that of other grades leaves off.

FOR SALE BY JOBBERS EVERYWHERE

BOOKS FOR PAINTERS.

Alphabets, Book of—Designed for the use of painters, sign writers, draughtsmen, etc. Paper. Price.....\$0.50

Alphabets—By F. E. Strange. A handbook of lettering compiled for the use of artists, designers, handicraftsmen and students. With complete historical and practical descriptions. With over 200 illustrations. Third edition. Price.....\$1.50

Art of Making and Using Sketches, The—By G. Fraipont. With 50 illustrations from drawings by the author. Translated from the French by Clara Bell, with preface by Edwin Bale, R. I. Crown 8vo. Cloth. Price....\$0.50

Alphabets, A Handbook of Lettering—By F. E. Strange. Price.....\$1.50

Alphabets, Prang's Standard—Revised edition. 38 plates. 8 by 12 inches. Eight plates in color and eight in tint. Containing a large number of designs for titles, colored initials, borders, compass points and topographical signs. It contains many standard alphabets in use by sign writers, as well as others specially suited for decorative inscriptions in churches, libraries, etc. Price.....\$2.00

American Decorator, The—A collection of sketches in colors, half-tones and black and white. Designed in different styles for the use of painters, decorators, etc. Portfolio style. Sheets, 10x14 inches. 2 vol. Price, each vol..\$1.10

Art of Letter Painting Made Easy, The—Badenoch. Price.....\$0.60

Art of Painting on Glass and Glass Staining—12mo. Fromberg-Gessert. Price.....\$1.00

Art, The Evolution of—As illustrated by the life histories of designs. By A. C. Haddon. Cr. 8vo. Price.....\$1.50

Art of Lettering and Sign Painters' Manual, The—In this work the aim of the author has been to convey a distinct idea of all styles in use, and to present them on a scale large enough to make all their peculiarities apparent, and their proportions unmistakable. In the explanation and description will be found some remarks on the various alphabets, preparation of different kinds of work, spacing, gilding—in fact, a condensed statement of the sign painter's art. Size, 5x15. Fourth edition. 41 pages. Price.....\$3.50

- Art, History of**—By William Luebke. 2 vols. 8vo. Half roan. Price.....\$7.50
- Artist's Manual of Pigments, The**—Shows the composition, conditions of permanency, non-permanency, adulterations, effects in combination with each other, and with vehicles. Also the most reliable tests of purity. Cloth binding. Price.....\$1.00
- Blackboard Drawing**—By N. E. Sparkes. With a preface by principal writers. With 52 full-page illustrations. Price.....\$2.00
- Cements, Pastes, Glues and Gums**—A practical guide to the manufacture and application of the various agglutinants required in the building, wood-working and leather trades, and for workshop, laboratory or office use, with upwards of 900 recipes and formulas. Compiled by H. C. Standage, an English chemist of great renown. Price.....\$1.00
- Chemistry of Pigments, The**—By Ernest J. Parry. B. Sc. (Lond.), F. I. C., F. C. S., and J. H. Coste, F. I. C., F. C. S. Five illustrations. 285 pp. 8vo, cloth. 1902. Price.....\$4.50
- Chemistry of Paints and Painting, The**—By A. H. Church, F. R. S., M. A. D. Sc., F. S. A., Professor of Chemistry in the Royal Academy of Arts in London. Third edition, revised and enlarged. 355 pp. 8vo. Price.....\$3.00
- Complete Carriage and Wagon Painter, The**—A work of 200 pages, written by a practical painter, and giving in plain language detailed directions for painting carriages, wagons and sleighs, and full instructions in all the various branches, including lettering, scrolling, ornamenting, striping, varnishing and coloring. With numerous recipes for mixing colors. 200 illustrations. Cloth. Price.....\$1.00
- Color**—By A. H. Church, Professor of Chemistry at the Royal Academy of Arts. With six colored plates. New and enlarged edition. Cloth. Price.....\$1.25
- Coloring, A Grammar of**—Applied to Decorative painting and the Arts. 12mo. Field. Price.....\$1.20
- Complete Guide for Coach Painting, A**—Translated from the French of M. Arlot, coach painter, for eleven years foreman of painting to M. Eherler, coachmaker, Paris. By A. A. Fesquet, chemist and engineer. To which is added an appendix, containing information respecting the materials and the practice of coach and car painting and varnishing in the United States and Great Britain. 173 pp. 12mo. Arlot. Price.....\$1.25

- China Painting**—Sixteen colored plates. Quarto. Lewis.
Price.....\$1.50
- Color, Chevreul on**—The principles of harmony and contrast of colors and their application to the arts. Translated from the French. Illustrated with numerous charts, etc. 500 pages. Cloth binding. Price.....\$1.50
- Decorative Designs of All Ages for All Purposes**—With 277 engravings and diagrams. Contents: Savage Ornament. Egyptian Ornament. Assyrian Ornament. Greek Ornament. Roman Ornament. Early Christian Ornament. Arabic Ornament. Celtic and Scandinavian Ornaments. Mediæval Ornaments. Renaissance and Modern Ornaments. Chinese Ornament. Persian Ornament. Indian Ornament. Japanese Ornament. Price.....\$0.50
- Decorative Painting**—A practical handbook on painting and etching upon textiles, pottery, porcelain, paper, vellum, leather, glass, wood, stone, metals and plaster for the decoration of our homes. By B. C. Saward. 12mo. Price.....\$1.40
- Decorative Design, Lessons in**—By Frank G. Jackson, lecturer on Principles of Ornament, Advanced Design, and teacher of Technical Art Processes, etc., in the Birmingham Municipal School of Art; author of "The Theory and Practice of Design." Containing 33 plates and numerous text illustrations. 8vo. 173 pages. Cloth. Price.....\$2.00
- Decoration of Houses, The**—With 56 full-page illustrations. By Edith Wharton and Ogden Codman, Jr. New and cheaper edition. Large 8vo. Price.....\$2.50
- Dictionary of Chemicals and Raw Products Used in the Manufacture of Paints, Colors, Varnishes and Allied Preparations**—By Geo. H. Hurst, F. C. S. 380 pp. 8vo, cloth. 1901. Price.....\$3.00
- Draw and Paint, How to**—The whole art of drawing and painting, containing concise instructions in outline, light and shade, perspective, sketching from nature, etc., etc. 10 Illustrations. Boards, cloth back. Price.....\$0.50
- Drawing for Modern Methods of Reproduction, A Practical Handbook of**—By Charles G. Harper. With a sketch of various processes and notices of painters' pen-drawings. Illustrated with drawings by several hands and with sketches by the author, showing comparative results obtained by the several methods of reproduction now in use. With 48 illustrations. Crown 8vo, cloth. Price.....\$2.25

- Design, Theory and Practice of**—By Frank G. Jackson. An advanced text-book on decorative art, being a sequel to the author's "Lessons on Decorative Design." 700 illustrations. 8vo. Price.....\$2.50
- Drawing, A Manual of Industrial**—New and revised edition for carpenters and other woodworkers. By W. F. Decker, instructor in drawing, University of Minnesota. 176 pp. 29 plates and numerous other illustrations. One 8vo vol., cloth. Price.....\$1.50
- Drying Oils, Boiled Oil and Solid and Liquid Driers**—By L. E. Andes. A practical work for manufacturers of oils, varnishes, printing inks, oilcloth and linoleum, oilcakes, paints, etc. 42 illustrations. 342 pp. 8vo, cloth. 1901. Price.....\$5.00
- Easy Lettering, A System of**—By J. Howard Cromwell. 26 pp. 5½x8 inches. Price.....\$0.50
- Elementary Principles of Ornament**—By James Ward. New and enlarged edition. Edited by George Altchison, Professor of Architecture at the Royal Academy of Arts. Numerous illustrations. 8vo. Price.....\$2.50
- English School of Painting, The**—By Ernest Chesneau. With an introduction by Prof. Ruskin. Crown 8vo, cloth. Price.....\$1.50
- Everybody's Paint Book**—A complete guide to the art of outdoor and indoor painting. 38 illustrations. 12mo. Gardner. Price.....\$1.00
- Every Day Art, Some Principles of**—By Lewis F. Day. Introductory chapters on the arts not fine. Illustrated. 12mo. Price\$1.50
- Figure-Drawing and Composition**—Being a number of hints for the student and designer upon the treatment of the human figure. By Richard G. Hatton, author of "A Text-Book of Elementary Design." Containing 184 illustrations. Octavo, cloth. Price.....\$2.75
- Fresco and Decorative Designs, Boyce's**—Size 11x14. Consisting of 20 pages, with over 80 designs and valuable instructions and suggestions for color mixing, etc., consisting of corners, center and side pieces, dados, friezes, borders, diaper, etc., for ceilings, walls and all kinds of ornaments for inside and outside decoration. Price\$2.50
- Flowers and How to Paint Them**—By Maud Naftel. With 10 colored plates. Crown 4to, oblong, cloth. Price....\$1.50
- Glue and Glue Testing**—By Samuel Rideal, D. Sc. (Lond.), F. I. C. 14 engravings. 144 pp. 8vo, cloth: 1900. Price\$4.00

- Glass Painting, A Treatise on the Art of**—Prefaced with a review of ancient glass. By Ernest R. Suffling. With one colored and thirty-seven illustrations. 140 pp. 8vo, cloth. 1902. Price.....\$3.50
- Gilder's Manual**—A guide to gilding in all its branches, as used in the several trades, such as interior decoration, picture and looking glass frames, oil and water gilding, re-gilding, gilding china, glass, pottery, etc., etc. Price.....\$0.50
- Grinnell's Hand Book on Painting**—This practical work, which became out of print during Mr. Grinnell's long illness, is again on the market. It contains more valuable information for painters than any other volume that ever appeared in this country. Nearly every problem that confronts the painter is discussed in its pages, and a solution is suggested for every question. The new edition is what is known as the Memorial Edition, and is published for the benefit of Mr. Grinnell's aged widow. A complete new index has been added to this volume, which enables one to turn at once to the information desired. Bound in strong paper covers with round corners. Price.....\$0.50
- Hardwood Finisher, The**—With rules and directions for finishing in natural colors, and in antique, mahogany, cherry, birch, walnut, oak, ash, redwood, sycamore, pine, and all other domestic woods. Finishing, filling, staining, varnishing and polishing. Also miscellaneous rules for dyeing, gilding and bronzing. Compiled and edited by Fred T. Hodgson. Illustrated. 12mo, cloth. Price..\$1.00
- History of Decorative Art**—By W. Norman Brown. 39 illustrations. 96 pp. 8vo, cloth. 1900. Price.....\$1.25
- Home Decorations, Principles of**—By Candace Wheeler. Size, 5x7½. Pages, about 200. Binding, cloth. Illustrated. Price\$2.40
- Historic Ornament**—By James Ward. First volume. Treatise on decorative art and architectural ornaments, pre-historic ornament, ancient art and architecture, Eastern, early Christian, Byzantine, Saracenic, Romanesque, Gothic and Renaissance architecture and ornamental. 436 illustrations. 8vo. Price.....\$3.00
- House Beautiful, The**—By Charles Cook. Essays on beds and tables, stools and candlesticks. With over 100 illustrations from original drawings. New and cheaper edition. Small 4to. Price.....\$2.50
- House Decorating and Painting**—By W. Norman Brown. 88 illustrations. 150 pp. 8vo, cloth. 1900. Price....\$1.50

- House and Sign Painters' Recipe Book**—A neat, well-printed book of 100 pages of solid reading matter in a condensed form, embracing a collection of recipes that the author has gathered in his experience of 30 years at the trade. Price\$0.50
- Home Mechanic, The**—A full compendium of indispensable information and instruction in the most useful mechanical trades. Each part has been prepared by a Specialist, who is master of his trade. The instruction is thorough and practical. Part II. is devoted to Painting—tells exhaustively how paints are prepared, mixed and applied, and how to make and use varnishes and dryers. It gives full and plain information about colors and tints, also about graining, staining, on glass, as well as wood; lettering, glazing and paperhanging. Part III. treats of sign, carriage and decorative painting, and contains full information and instructions as to frescoes and walls and interior ornamentation that is to be found elsewhere only in high-priced volumes. The technical knowledge that it imparts of pillars and scrolls, ceiling and borders and room decorations is worth many times the price of the whole book, and this can be as truly said of the practical instruction in carriage painting, and also that in sign painting, which includes painting on glass and various metals and textiles, as well as on wood. Part IV. treats of finishing and ornamenting furniture and cabinet articles, tells how to prepare the materials, what tools to use and how to use them. This covers, among other things, the processes of bleaching, darkening, staining, filling, graining, veneering, marqueterie work, buhl work, and inlaying of all sorts. Recipes for varnishes, stains, cements, etc., and for removing stains and reviving leather cloths, will be invaluable in any family. 876 pp. Large 12mo. Bound in cloth. Price.....\$2.00
- How to Mix Paints**—A simple treatise prepared to meet the wants of the practical painter. By C. Godfrey, an authority on the subject. Simple, clear directions are given so that by a little practice the reader may be able to mix the various tints and shades of reds, blues, yellows, browns, greens, and colors made from blacks, etc. Besides the directions for mixing paints, much information is given about tints and shades, the use and care of brushes, hints on displaying colors to show customers, color, harmony, etc. This work is a handy little companion for both the amateur and practical painter. The information given in these pages will save in time and material more than its cost, the first day the painter has it in use. Bound in paper covers. Price\$0.50

- House Painting, Manual of**—By Ellis A. Davidson. 394 pages, nine colored plates and many useful recipes. Price. \$2.00
- House Decoration**—Comprising whitewashing, paperhanging, painting, etc. With 79 engravings and diagrams.
Price\$0.50
- Iron-Corrosion, Anti-Fouling and Anti-Corrosive Paints**—By Louis Edgar Andes. Translated from the German. 62 illustrations. 275 pp. 8vo, cloth. 1900. Price....\$4.00
- Japanning and Enameling for Cycles, Bedsteads, Tinware, Etc., A Handbook of**—By William Norman Brown. 52 pp. and illustrations. 8vo, cloth. 1901. Price.....\$1.50
- Japanese Ornamentation, Book of**—A collection of designs adapted to the use of decorators, designers, sign painters, silversmiths and others. Designs all practical, ranging from the simplest to the most elaborate.
Price\$2.00
- Landscape Painting in Water Colors**—By J. MacWhirter, R. A. With 25 colored plates. Oblong, crown, 4to, cloth, gilt.
Price\$2.50
- Letters and Lettering**—A complete treatise on the art of lettering, with 200 examples, by Frank Chouteau Brown. A fine work of over 200 pp., cloth binding. Price...\$2.00
- Line and Forms**—By Walter Crane. Price.....\$4.00
- Manufacture of Mineral and Lake Pigments, The**—Containing directions for the manufacture of all artificial, artists' and painters' colors, enamel, soot and metallic pigments. A text-book for manufacturers, merchants, artists and painters. By Dr. Josef Bersch. Translated from the second revised edition by Arthur C. Wright, M. A. (Oxon.), B. Sc. (Lond.), formerly assistant lecturer and demonstrator in chemistry at the Yorkshire College, Leeds. 43 illustrations. 476 pp. 8vo, cloth. 1901.
Price\$5.00
- Manufacture of Paint**—A practical handbook for paint manufacturers, merchants and painters. By J. Cruickshank Smith, B. Sc. 200 pp. 60 illustrations and one large diagram. 8vo, cloth. 1901. Price.....\$3.00
- Manual of Ornament and Banner Painter, Boyce's**—Consists of over 100 designs for borders, linings, corners and miscellaneous ornaments for all purposes, in addition to which are two pages of designs for society and ecclesiastical banners, with minute instructions for their preparation, published for the first time, having heretofore been considered secrets among the craft. Size 11x14 inches. Price.....\$2.50

- Manufacture of Varnishes, Oil Refining and Boiling, The**—Describing the manufacture of spirit varnishes and oil varnishes; raw materials; resins, solvents and coloring principles; drying oils, their properties and application, by both hot and cold processes. 27 illustrations. 400 pp. Cloth. Price.....\$5.00
- Model Drawing**—Containing elementary principles of drawing from solid forms. With 20 single and 6 double-page plates. By E. A. Davidson. Ninth edition. 16mo, cloth. Price\$1.00
- Models and Common Objects, How to Draw from**—A practical manual. By W. E. Sparkes, Art Master Borough Road Training College. With 184 figures in 44 plates by the author. 132 pages, bound in cloth, 5x7½ inches. Price\$1.00
- Modern Wood Finisher, The**—By Mr. F. Maire, formerly editor of "Painting and Decorating." A practical treatise on wood finishing in all its branches, including tools and materials employed, preparation of surfaces, stains and staining, fillers and filling, shellacking, varnishes and varnishing, rubbing, polishing, French polishing, wax polishing, oil polishing, etc. Also a full description of the woods employed in wood finishing, their treatment, and the finishing of floors. Extra strong paper covers. About 160 pages. Price.....\$0.50
- Modern Show Card Lettering and Design**—A new work, full of comprehensive instruction, alphabets, designs, etc. Also contains 2,000 bright, clear-cut advertising phases. 100 pages, paper covers. Price.....\$1.00
- Modern Ornament and Interior Decorator, Boyce's**—A limited number of the original edition of this book, which are slightly incomplete, lacking two or three unimportant pages, but having all the ornaments and colored designs complete in every detail as first published, are now offered for sale at \$2.00 each (original price, \$3.50). This book will never be re-issued owing to the great expense of reproducing it in colors. Price\$2.00
- Oil Painting, A Manual of**—A treatise on the practice and theory of oil painting. By Hon. John Collier. Price..\$0.75
- Ornamental Design**—Embracing anatomy of pattern, planning, of ornament, application of ornament. By Lewis F. Day. 116 full-page illustrations. 12mo. Price.....\$4.20
- Ornaments, Boyce's Collection of**—Nos. 1 and 2. Each book contains a large number of practical ornaments for all purposes. Size of book, 6x10. Price, each.....\$0.50

- Ornament, Nature in**—By Lewis F. Day. With 123 plates and 192 illustrations in the text. Crown, 8vo. Price....\$4.50
- Ornament, Grammar of**—By Owen Jones. Illustrated by examples from various styles of ornament. 112 plates in gold and colors. Imperial, 4to. Price.....\$18.00
- Ornamental Details of the Italian Renaissance**—By G. A. T. Middleton and R. W. Carden. Measured and drawn. 50 plates. Folio. Price.....\$10.00
- Ornamental Draftsman and Designer, The**—Arranged by Robert Scott Burns. This is a series of practical instructions and examples of free-hand drawing in outline and from the round. Examples of design in the various styles of ornament adapted to practice, together with a series of practical papers on form and color as applied to industrial decoration and art manufactures. This work contains 19 folding plates and 75 illustrations in text, and is of special value to draftsmen and designers. Large crown, 8vo, cloth. Price.....\$2.00
- Painting in Neutral Tints, A Course of**—With 24 colored plates. Oblong. Leitch. Price.....\$1.50
- Painting, History of**—By Woltman and Woerman. 2 vols. 8vo. Half roan. Price.....\$7.50
- Painting Popularly Explained**—12mo. Gullick and Timbs
Price\$2.00
- Painter's Manual**—A practical guide to house and sign painting, graining, varnishing, polishing, kalsomining, papering, lettering, staining, gilding, glazing, silvering, etc., etc. Including treatise on how to mix paints. To the learner the book is simply indispensable. Price—\$0.50
- Painters' Colors, Oils and Varnishes**—A practical manual. By George H. Hurst, F. C. S., Member of the Society of Chemical Industry; Lecturer at the Municipal Technical School, Manchester; author of "A Hand-Book of Garment Dyeing and Cleaning." Profusely illustrated, with copious index. Crown octavo. 472 pages, cloth.
Price\$3.50
- Painting and Decorating**—A complete practical manual for house painters and decorators. Embracing the use of materials, tools and appliances, the practical processes involved, and the general principles of decoration, color, and ornament. By Walter John Pearce, lecturer at Manchester Technical School for House Painting and Decorating. With numerous illustrations and plates, some in colors, including original designs. Crown, 8vo, extra. Price\$3.25

- Painter's Encyclopædia**—Containing definitions of all important words in the arts of plain and artistic painting. Fully illustrated. 12mo. Gardner. Price.....\$2.00
- 739 Paint Questions Answered**—An Encyclopedia, answering many of the questions that worry the painter and decorator. This volume is handsomely bound in cloth and contains 384 large quarto pages. One of the most valuable features of the work is the complete topical index, by means of which the answer to any question can be found at once. This work is made up from the questions and answers that have appeared in "The Painters' Magazine" during the past thirty years. Price\$3.00
- Painter, Gilder and Varnisher's Companion**—Comprising the manufacture and test of pigments, the arts of painting, graining, marbling, staining, sign writing, varnishing, glass staining and gilding on glass; together with coach painting and varnishing, and the principles of the harmony and contrast of colors. Twenty-seventh edition. Revised, enlarged and in great part re-written. By William T. Brannt, editor of "Varnishes, Lacquers, Printing Inks and Sealing Waxes." Illustrated. In one volume, 12mo. 415 pages. Bound in cloth. Revised, enlarged and improved. Price.....\$1.50
- Paint and Color Mixing**—By Arthur Seymour Jennings. A practical handbook for painters, decorators and all who have to mix colors. Containing 72 samples of actual paint of various colors and upwards of 400 different color mixtures, with hints on color and paint mixing, testing colors, etc. The nomenclature of colors is at best rather uncertain, and as the book says: "If half a dozen practical painters, experienced in color mixing, were asked separately to mix a given color, say sea green, it is almost certain that when the six colors were compared there would be no two alike. Each of the six painters might have precisely the same make of colors to work with, and yet the sea green in each case would be different. The explanation, of course, is that opinions differ as to what is sea green." In an endeavor to remedy, if possible, this uncertainty in regard to the shade meant by the color name, Mr. Jennings has included in the book sample cards showing 48 different colors, and has described the method of mixing not only these, but almost every other color that a client would be likely to describe to a painter, telling in each case what should be used to make up the color. Instructions are also given for mixing graining grounds and for testing colors, as well as a short chapter on brushes and a number of useful practical hints and recipes. Price\$2.50

- Perspective, Modern**—By W. R. Ware. Price.....\$4.00
- Principles of Harmony and Contrast of Colors, The**—And page illustrations. 8vo. Price.....\$2.00
- Practical Treatise on the Manufacture of Colors for Painting, A**—80 engravings. 8vo. Riffault. Price.....\$5.00
- Principles of Harmony and Contrast of Colors, The**—And their application to the arts. Illustrated with colored plates. 12mo. Chevreul. Price.....\$2.25
- Paperhanger's Companion**—A treatise in which the practical operations of the trade are systematically laid down; with copious directions preparatory to papering; preventions against the effect of damp walls; the various cements and pastes adapted to the several purposes of the trade; observations and directions for the paneling and ornamenting of rooms, etc. By James Arrow-smith. 108 pp. 12mo. Price.....\$1.00
- Plant Form, A Book of Studies in**—With some suggestions for their application to design. By A. E. V. Lilley and W. Midgley. New and very much enlarged edition. With many additional illustrations. 8vo. Price....\$2.00
- Practical Manual of House Painting, Graining, Marbling and Sign Writing, A**—Containing full information on the processes of house painting in oil and distemper, the formation of letters and practice of sign writing, the principles of decorative art, a course of elementary drawing for house painters, writers, etc., and a collection of useful receipts. With nine colored illustrations of woods and marbles, and numerous wood engravings. By Ellis A. Davidson. 394 pages. 12mo. Price....\$2.00
- Practical Book of Drawing, A**—By Charles G. Harpen. Illustrated with drawings by several hands and with sketches by the author, showing comparative results obtained by the several methods of reproduction now in use. Price.....\$2.25
- Practical Carriage and Wagon Painting**—By M. C. Hillick. A very complete work on the subject of carriage and wagon painting. It covers all topics pertaining to this branch of the trade, including every feature of the work, from priming to finish, with a discussion of tools, materials, and paint shop appliances, giving many practical methods and formulas, and devoting one chapter to the painting of cutters and sleighs. The name of the author is sufficient guarantee of the high standard of the work. He has succeeded in making it plain and practical enough for all. Bound in cloth, well illustrated, and contains upwards of 160 pages. Price.....\$1.00

- Perspective, The Principles of, as Applied to Model Drawing and Sketching from Nature**—By George Trobridge. With 32 plates and other illustrations. Second edition, revised and enlarged. Cloth. Price.....\$1.25
- Perspective**—By Ada Cone. A series of practical lessons beginning with elementary principles and carrying the student through a thorough course in perspective. 33 illustrations. One 12mo volume, cloth. Price....\$1.00
- Painters' Laboratory Guide, The**—Contents: Paints, pigments and varnishes. Preparation of pigment colors. Red oxide, white pigments, vermilion, ultramarine, etc. Lakes. Paint oils and thinners. Driers. Varnishes. Index. 22 illustrations. 254 pages. 12mo, cloth. Price\$1.75
- Practical Graining and Marbling**—With numerous wood engravings and diagrams. Edited by Paul N. Hasluck. Contents: Introduction, Tools and Mechanical Aids—Graining Grounds and Graining Colors—Oak Graining in Oil—Oak Graining in Spirit and Water Colors—Pollard Oak and Knotted Oak Graining—Maple Graining—Mahogany and Pitchpine Graining—Walnut Graining—Furniture Graining—Imitating Woods by Staining—Imitating Inlaid Woods—Marbling. Price.....\$1.00
- Pigments, Paint and Painting**—A practical book for practical men. "Although written from the English standpoint, the book is of equal value to American painters, and being brought up to date with facts and statistics would prove a valuable addition to the library of the manufacturer."—Painting and Decorating. Contents: The following synopsis gives the number of pages devoted to each heading: Preliminary, 4 pp.; blacks, 22 pp.; blues, 74 pp.; browns, 8 pp.; greens, 28 pp.; reds, 31 pp.; whites, 77 pp.; yellows, 24 pp.; lakes, 3 pp.; luminous paints, examination of pigments, vehicles and dryers, 43 pp.; paint, machinery, 11 pp.; painting, 33 pp.; index, 392 pp. 22 illustrations. 12mo, cloth. George Terry. Price.....\$3.00
- Recipes for the Color, Paint, Varnish and Oil Trades**—Compiled by an analytical chemist. 350 pages. 8vo, cloth. Price\$3.50
- Science of Color Mixing**—Price.....\$3.00
- Signs, Tickets and Posters, How to Write**—170 illustrations. Price\$0.50
- School of Painting**—For the imitation of woods and marbles, as taught and practiced by A. R. Van der Burg and P. Van der Burg. Numerous engravings and chromolithographs. Folio. Van der Burg. Price.....\$12.50

- Scene Painting and Painting in Distemper**—Gives full instructions in the preparation of the colors, drawing for scene painters, stage settings and useful information regarding stage appliances and effects. Numerous illustrative diagrams and engravings. Price.....\$1.00
- Scientific American Encyclopedia of Receipts, Notes and Queries, The**—This splendid work contains a careful compilation of the most useful receipts and replies given in the notes and queries of correspondence as published in the "Scientific American" during nearly half a century past; together with many valuable and important additions. Over 12,500 selected receipts are here collected, nearly every branch of the useful arts being represented. It is by far the most comprehensive volume of the kind ever placed before the public. 708 pages. Price\$5.00
- Scientific American Reference Book**—Compiled by Albert A. Hopkins and A. Russell Bond. Profusely illustrated in colors and black and white. 12mo., cloth; 516 pages. This handsome and valuable work is the result of the queries of three generations of readers of the leading mechanical publication of the age. This book is apparently indispensable in every home and office, as it answers intelligently almost any question that may arise. It deals with matters of interest to everybody. It contains no less than 50,000 facts, and is the most complete work of its kind ever produced. The book is brought down to date, and contains full information in regard to battleship and steamship construction, wireless telegraphy, radium, etc. Nothing seems to have escaped the notice of the compilers. We hardly see how any library could be complete without this book. Price\$1.50
- Sign, Carriage and Decorative Painting**—Contains points upon the several branches of the trade. It includes fresco and car painting, and other useful matters. Price..\$0.50
- Sign Writing and Glass Embossing**—A complete practical illustrated manual of the art. By James Callingham. A new edition, to which is added the art of letter painting made easy, by James Greig Badenoch. Illustrated by 48 engravings and 28 plates of alphabets, etc. In 1 vol., 12mo, 258 pages. Price.....\$1.50
An abridged edition of above, Americanized, in paper covers, will be sent for 75 cents.
- Sketches, The Art of Making and Using**—By G. Fraipont. With 50 illustrations from drawings by the author. Translated from the French by Clara Bell, with preface by Edwin Bale, R. I. Price.....\$0.50

- Standard Sign Writer, The**—Old, but still a popular book.
Price\$2.00
- Standard Scroll Book, The**—A collection of upward of 200 designs for painters, jewelers, designers, decorators, and every branch requiring ornamental scroll work. It must be seen to be appreciated. Prominent features in this book are the shaded scrolls and the designs for
- Students' Hand Book of Paints, Colors, Oils and Varnishes**—
By John Furnell, manufacturing foreman. This is a technical work of great value, and contains much friendly advice and encouragement to those who wish to investigate the subjects treated. There is sound, useful, practical information to be gathered from this book, if it is studied with that object. Price.....\$1.00
signs, wagons and omnibuses. Price.....\$1.00
- Systematic Drawing and Shading**—With 88 illustrations.
Ryan. Price.....\$0.75
- Techno-Chemical Receipt Book**—A storehouse of information on nearly every subject. Over 500 pages. Cloth binding. Price.....\$2.00
- Testing Painters' Materials, Simple Methods for**—By A. C. Wright, B. Sc., London. A practical, up-to-date work of 160 pages, giving full directions for testing all the materials used by painters. Price.....\$2.50
- Testing and Valuation of Raw Materials Used in Paint and Color Manufacture, The**—By M. W. Jones, F. C. S. A book for the laboratories of color works. 88 pages. 8vo, cloth. 1900. Price.....\$2.00
- The Industrial and Artistic Technology of Paint and Varnish**—
By Alvah H. Sabin, a paint and varnish chemist of note. The volume is well printed and illustrated and is finely bound in cloth. It contains 382 pages, and covers almost every point pertaining to paint and varnish. Price\$3.00
- The Philosophy of Color**—By C. R. Clifford, Editor of the "Wall Paper News." Profusely illustrated with black and white cuts, and a large colored chart. This is a work that fills a long-felt want. The subject of color is treated in a most interesting manner. The knowledge of color harmony has usually been regarded as an occult art, but by a few simple rules and explanations the author has brought the subject within the understanding of every one. This work is written especially for painters and decorators, and contains just the information they ought to have. Cloth binding. 72 pages. Price\$0.50

- Theory and Practice of Design**—An adopted text-book on decorative art. Being a sequel to the author's "Lessons in Decorative Design." By Frank G. Jackson, lecturer on Principles of Ornaments, Advanced Design, and teacher of Technical Art Processes, etc., in the Birmingham Municipal School of Art. Containing 700 illustrations. 8vo, cloth. Price.....\$2.50
- Use of Colors**—A practical guide for artists and art students. Paper binding. Price.....\$0.25
- Up-to-Date Hardwood Finisher, The**—By Fred T. Hodgson, architect, member Ontario Association of Architects, Editor of the "National Builder," and author of a large number of practical books on building. 117 illustrations. 12mo cloth; 320 pages. This work, which is just from the press, seems to be thoroughly up-to-date, and to cover the field thoroughly. It treats on the filling, staining, varnishing, polishing, gilding and enameling of woodwork on all kinds of woods. It also treats on renovating old work, repolishing, revarnishing and wood finishing generally. There is a short treatise on dyeing woods in various colors for inlaying and marquetry work, with rules for making stains, dyes, fillers and polishes of various kinds, French polishing, hard-oil finish, rubbed and flat finish, treatment of hardwood floors, waxing, polishing, shellacking and general finishing of hardwood in all conditions. Price.....\$1.00
- Varnishes, Lacquers, Printing Inks and Sealing Waxes**—Their raw materials and their manufacture, to which is added the art of varnishing and lacquering, including the preparation of putties and of stains for wood, ivory, bone, horn and leather. By William T. Brannt. Illustrated by 39 engravings. In 1 vol. 12mo, 19 pages preliminary and 338 pages text. Price.....\$3.00
- Wall Papers and Wall Coverings**—A practical handbook for decorators, paperhangers, architects, builders and house owners, with many half-tone and other illustrations showing the latest designs. By Arthur Seymour Jennings. 1 vol., 8vo. Fully illustrated. Contents: Chapter I. Introduction; Chapter II. The Selection of Wall Papers; Chapter III. English Wall Papers; Chapter IV. American Wall Papers; Chapter V. French Wall Papers, their Characteristics; Chapter VI. The Different Varieties of Wall Papers; Chapter VII. Miscellaneous Hangings; Chapter VIII. Relief Decorations; Chapter IX. The Tools Employed in Paperhanging; Chapter X. Hanging Papers on Walls; Chapter XI. Dadoes, Fillings and Friezes; Chapter XII. The History of Wall Paper. Price\$2.00

- Webster's Vest-Pocket Dictionary**—Gilt edges, leather bound. Contains 45,800 words and definitions. It is also gazetteer, parliamentary manual, expert calculator and literary guide. Price.....\$0.50
- Windows**—By Lewis F. Day. A book about stained glass. Illustrated, 8vo. Price.....\$10.50
- Wood Finishing**—Comprising staining, varnishing and polishing, with engravings and diagrams. Price.....\$0.50
- Workshop Wrinkles**—For decorators, painters, paperhangers and others. By W. N. Brown. 128 pages. 8vo, cloth. 1901. Price\$1.00



WINDSOR & NEWTON'S HAND BOOKS.

PRICE 25 CENTS EACH.

- 1 Warren's Half-Hour Lectures on Drawing and Painting.
- 2 Rowbotham's Art of Sketching from Nature.
- 3 Rowbotham's Art of Landscape Painting in Water Colors.
- 4 Penley's System of Water Color Painting.
- 5 Carmichael's Art of Marine Painting in Water Colors.
- 6 Hatton's Hints for Sketching in Water Colors from Nature.
- 7 Merrifield's Art of Portrait Painting in Water Colors.
- 8 Day's Art of Miniature Painting.
- 9 Duffield's Art of Flower Painting in Water Colors.
- 10 Williams' Art of Landscape Painting in Oil Colors, with Instructions for the Mixing and Composition of Tints.
- 11 Murray's Art of Portrait Painting in Colors.
- 12 Carmichael's Art of Marine Painting in Oil Colors.
- 13 Penley's Elements of Perspective.
- 14 Burbidge's Principles of Drawing Flowers and Plants.
- 15 Laing's Manual of Illumination.
- 17 Weigall's Art of Figure Drawing.
- 18 Warren's Artistic Treatise on the Human Figure.
- 19 Warren's Artistic Anatomy of the Human Figure.
- 21 Hawkin's Anatomy of the Horse.
- 23 Murray's Art of Drawing in Colored Pastel Crayons.
- 24 Goodwin's Art of Mural Decoration.
- 25 William's Transparency Painting on Linen.
- 26 Groom's Painting on Glass for Magic Lanterns, etc.
- 27 Martel's Principles of Coloring in Painting.
- 28 Martel's Principles of Form in Ornamental Art.
- 30 Mogford's Instructions for Cleaning, Repairing, Lining and Restoring Oil Paintings, with a Chapter on Varnishing.
- 32 Hawkin's Comparative Anatomy, as Applied to the Purposes of Artists and Amateurs.
- 33 Robertson's Art of Etching on Copper.

89080453442



B89080453442A